

WHAT IS CLAIMED IS:

1. A cardiac stimulation device having a first terminal for connection to a first implantable electrode, a second terminal for connection to a second implantable electrode, and a third terminal, comprising:

a pulse generator;

switch means for connecting any combination of said first and second terminals to said pulse generator to deliver electrical therapy to the first implantable electrode, the second implantable electrode, or both the first and second implantable electrodes; and

control means for controlling operation of said pulse generator and said switch means.

2. The cardiac stimulation device of claim 1, wherein said switch means comprises:

a first switch connecting said pulse generator to the first terminal; and

a second switch connecting said pulse generator to the second terminal.

3. The cardiac stimulation device of claim 2, wherein said control means comprises:

a programmable microcontroller; and

computer readable program code means for causing said microcontroller to control said switch means to close only one of said first and second switches to provide left ventricular pacing to a heart, to close only the other of said first and second switches to provide right ventricular pacing, and to close both of said first and second switches to provide bi-ventricular pacing.

4. The cardiac stimulation device of claim 1, wherein said switch means further comprises:

means for connecting any combination of said third terminal and a fourth terminal to ground to provide a return path for said electrical therapy from a third implantable electrode, a fourth implantable electrode, or both the third and fourth implantable electrodes.

5. The cardiac stimulation device of claim 4, wherein said switch means comprises:

- a first switch connecting said pulse generator to the first terminal;
- a second switch connecting said pulse generator to the second terminal;
- a third switch connecting said pulse generator to the third terminal; and
- a fourth switch connecting said pulse generator to the fourth terminal.

6. The cardiac stimulation device of claim 5, wherein said control means comprises:

- a programmable microcontroller; and
- computer readable program code means for causing said microcontroller to control said switch means to
  - provide left ventricular pacing by closing only one of said first and second switches and closing at least one of said third and fourth switches,
  - provide right ventricular pacing by closing only the other of said first and second switches and closing at least one of said third and fourth switches, and
  - provide bi-ventricular pacing by closing both of said first and second switches and closing at least one of said third and fourth switches.

7. The cardiac stimulation device of claim 1, wherein said switch means further comprises:

- means for connecting any combination of said third terminal and a fourth terminal to ground to provide a return path for said electrical therapy from a third

implantable electrode, a case of said stimulation device, or both the third implantable electrode and said case.

8. A method for operating a cardiac stimulation device having a first terminal for connection to a first implantable electrode, a second terminal for connection to a second implantable electrode, and a third terminal, the method comprising:

using a pulse generator to generate an electrical pulse for delivery to a heart;

electrically configuring switch means to deliver said electrical pulse to the first terminal when pulse delivery is desired to a right ventricle of the heart;

electrically configuring said switch means to deliver said electrical pulse to the second terminal when pulse delivery is desired to a left ventricle of the heart; and

electrically configuring said switch means to deliver said electrical pulse to both the first and second terminals when bi-ventricular pulse delivery is desired.

9. The method of claim 8, wherein said first configuring step comprises:

closing a first switch to connect said pulse generator to the first terminal;  
and

opening a second switch to isolate said pulse generator from the second terminal.

10. The method of claim 9, wherein said second configuring step further comprises:

opening said first switch to isolate said pulse generator from the first terminal; and

closing the second switch to connect said pulse generator to the second terminal.

11. The method of claim 10, wherein said third configuring step further comprises:

closing the first switch to connect said pulse generator to the first terminal;  
and

closing the second switch to connect said pulse generator to the second terminal.

12. The method of claim 11, further comprising:

electrically configuring said switch means to connect any combination of said third terminal and a fourth terminal to ground to provide a return path for said electrical pulse from a third implantable electrode, a fourth implantable electrode, or both the third and fourth implantable electrodes.

13. The method of claim 12, wherein said fourth configuring step comprises:

closing a third switch to connect said pulse generator to the third terminal;  
and

opening a fourth switch to isolate said pulse generator from the fourth terminal.

14. The method of claim 12, wherein said fourth configuring step further comprises:

opening a third switch to isolate said pulse generator from the third terminal; and

closing a fourth switch to connect said pulse generator to the fourth terminal.

15. The method of claim 12, wherein said fourth configuring step further comprises:

closing a third switch to connect said pulse generator to the third terminal;

and

closing a fourth switch to connect said pulse generator to the fourth terminal.

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